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ABSTRACT

Many entry level employees do not have the skills to become productive members of the work force. The nationwide decline in educational performance is documented by functional illiteracy among 13 percent of white 17-year-olds, and 42 percent of black 17-year-olds; a decline in the national average scores on the Scholastic Aptitude Test (SAT); and increasing school dropout rates. High technology, a service-oriented society, the integration of immigrants, and global competition offer new challenges to the ability of American education to produce a competent work force. At fault is the overregulated and uncontrolled education system. Consumers are denied a direct impact on basic education policies, and policy control within the system is split between the state and various local governments and agencies. The conditions for true accountability and effectiveness can only be created at the local level, with the exception of matters of funding equalization and academic goals that should be established and supported by state legislatures and universities. The business community can help achieve local control by defining exactly what schools should accomplish to prepare high school graduates to enter the world of work and by offering support for the return of authority over the educational process to local communities. (MLF)

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# SEQUOIA ACTION BRIEF #1

# EDUCATION

## MORE OF THE SAME?

Are you satisfied with the knowledge and skills, the attitude toward work of your prospective entry-level employees?

Is their preparation for the world of work close enough to what it should be that all we need is a little more of the same? If so, we're in good shape because more of the same is what most professional educators are advocating as reform.

If instead you find that few of your applicants are even minimally prepared for employment, then we need real change.

Real change does not mean destroying the public schools. It does mean deregulating them, eliminating pointless state restrictions on who may teach, and what is to be taught, and how it is to be taught. It means connecting education to labor market reality. It means returning authority to local communities — to the parents, business people and taxpayers who know what we need — and who always have.

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# BUSINESS AND THE FUTURE OF EDUCATION

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July, 1982

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# BUSINESS AND THE FUTURE OF EDUCATION

Everyone — the public, the media, the universities and colleges, education experts, the business community — agrees that public primary and secondary schools are failing to educate young people. But, as usual, they do not entirely agree on what is wrong and how to fix it. And, unfortunately, the one thing that is common to most proposals for reform is an underlying belief that the present system can be fixed by minor changes: a little more authority at the state level, better fiscal management, new teaching methods, a little more money.

The situation is more serious than that. Education is another failing American industry: Costs are increasing; productivity and the ability to create new ways to deliver and improve services are declining. The consequences are disastrous. Whatever else citizens may expect from schooling, the ability of the American economy to survive internal stresses and increasing global competition depends on the skills and knowledge of the work force and its management.

The business community, which pays the highest price for the failure of public education, is in the best position to lead the effort to revive it. Education is not an assembly-line industry — attempts to treat it that way have done much of the damage, but it is an industry, and the principles of industrial success can be applied to the problem of education reform.

From the business point of view, the nature of the failure of education is clear. Too many entry level employees with high school or college diplomas do not have the reading, writing and communication skills, the technical, scientific or academic

knowledge, to become productive members of the work force. And from a business perspective, the reasons for the failure are equally evident: The public schools are a bureaucratized, monopoly industry where the usual outside forces which determine business success, such as consumer choice, do not operate. No one, not businessmen, not even the local schools that have to get the job done, can find anyone who has the power to act on complaints and recommendations, to correct what is obviously wrong.

The education system is both over-regulated and uncontrolled. There are many causes for this remarkable situation but there is only one remedy: removal of state-imposed prescriptions of educational methods, combined with restoration of authority to local communities.

Action begins with facts. This first Sequoia Action Brief outlines new challenges to the ability of American education to produce a competent work force, current findings on the inadequacy of public schools, and the reasons for it; and the first steps toward meaningful reform.

## CONTEMPORARY CHALLENGES

### High Technology

Rapid advances in computer and communication technologies are changing almost every method of service provision, industrial production, and way of doing business. Scientists say that the total amount of technical and scientific knowledge doubles in every eight-year period, and that new technologies rapidly make much old knowledge irrelevant.

These changes in the nature of industry and the pace of scientific development emphasize basic educational needs and create new ones.

At a minimum, workers must be literate in English language and competent in basic mathematics in order to absorb technological developments: "It's impossible to know what our manpower needs will be in five or ten years, and, therefore, the basic need is for flexible people who have been trained in reading, writing, basic computational skills, and thinking. We can teach them the rest." (1)

Basic understanding of the computer is already a major

component of literacy as a large segment of the labor force is drawn by rapid increases in microtechnology into the manufacture and operation of computers, robots and associated components.

### The Service-Oriented Society

Early in the century, only three of ten workers were in the service sector; today, service sector jobs account for more than two-thirds of all employment. This shift from goods production to services is a shift from reliance on physical capital to reliance on human capital.

This increases the economic importance of formal education; routine service-sector jobs require basic literacy and technical skills, and, for the health, education, and research fields, the solid general and technical education which produces problem solvers and integrative thinkers.

Management of people becomes a central function: "The competence of management . . . particularly of those engaged in producer services, determines the ability of enterprises to obtain and utilize effectively the other essential resources, such as physical capital, materials, and technology." (2)

Since good management requires both skill in human relations and technical knowledge, this again underscores the need for breadth and depth in education.

### Integration of Immigrants

Continuing large-scale immigration into the United States, and particularly the rapid growth of immigrant populations in California, adds to the crisis in education. Immigrants of Mexican and Asian origin need effective instruction in English and assistance with cultural assimilation which is not being provided by the schools. New immigrants are instead joining the "permanent underclass, a self-perpetuating culture of poverty," that is "ill-employed, and ill-equipped to make its way in American society." (3)

A senior vice-president of TRW, Incorporated, has said, "After almost two decades of declining productivity, the margins of competitiveness we once possessed are being exhausted in industry after industry . . . . If opportunities and training are not made available to the structural unemployed,

America will create a permanent underclass which will be frozen into economic limbo." (4)

The growth of such a class, a tragedy for its members themselves, is also a matter of serious economic concern. It wastes a significant labor potential, diminishes the buying power of a large percentage of the population, and promotes crime. The government costs of providing subsistence living, welfare, and unemployment relief are a particularly unproductive increase in the public's tax burden.

**Global Competition**

The total American economic achievement of the last two decades has compared favorably with other major industrial nations during some periods and unfavorably at others, depending on such factors as energy costs, monetary policies, and the availability of capital investment.

The one clear indicator of persistent American weakness in the international competition is labor productivity, where our rating has been consistently low and is still declining. This decline has put us at a serious disadvantage, particularly with the rapid growth of multinational corporations, able to invest capital resources and select a work force in any country they choose.

The common feature of our most successful industrialized competitors is the availability of a literate work force. The striking example is, of course, Japan. "Although precise cross-cultural comparisons are almost impossible, illiteracy has been estimated, by some, to be as high as 20 percent in the United States, but in Japan, illiteracy rates are generally estimated to be below one percent." (5)

It has taken a long time for U. S. business and labor leaders to realize that the economic threat from abroad is not just the export of low-skilled jobs to low-paid workers in less developed countries. The most serious challenge comes from the well-educated, highly-skilled, and well-paid worker cadres of Western Europe and Japan. Business has recognized the problem. In the words of Pat Marino of Kaiser Aluminium and Chemical Corporation: "We must let people know the jobs that will be available and the skills that will be necessary, and that we're facing competition on the international market."

## A DOCUMENTED FAILURE

The decline in educational performance is nationwide. Minorities and new immigrants show the lowest achievement, as is to be expected from their brief exposure to American culture; but no class of students is doing well. By some measures, California students are doing even more poorly than the U.S. average.

- Thirteen percent of 17-year-olds nationwide were found functionally illiterate by a National Association of Educational Progress Survey; among black 17-year-olds the figure was 42 percent. (6)
- Between 1964 and 1975 national average scores on the SAT (scholastic aptitude tests, taken by college-bound seniors) dropped 28 points in basic verbal abilities; between 1963 and 1980 SAT scores dropped 36 points in mathematics. (7,8)
- California's school drop-out rate in 1981 was twice that of the U.S. as a whole — 13 percent of 14-year-olds and 30 percent of 17-year-olds. (9)

The public is aware: Nearly half the respondents to a Gallup Poll indicated they felt the schools were doing a poor job or only a fair job. Seven years before, in a similar poll, two-thirds of the respondents had rated schools excellent or good.

In the last two years some of these general downward trends have leveled off, but this is not a consolation to anyone relying on the public schools to produce a work force capable of meeting contemporary demands. Paul Dehart Hurd, a professor emeritus at Stanford University, recently described the extent to which schools are actually providing students with the necessary fundamentals of technical education:

> "Of the 25 instructional hours available in a school week, elementary-school children get an average one hour of science and less than four of arithmetic. In junior high, students continue math, but most don't start algebra until the ninth grade, and then only two-thirds of ninth graders do so. The science program is mixed up, with few opportunities to explore a science or engineering topic in any systematic way.
>
> "Only 34 percent of our 3 million annual high school

graduates have completed three years of math. Only 8 percent complete a course in calculus — only 31 percent of high schools even teach calculus. Most seniors have had a biology course, a little over one-third have had chemistry. Physics is a part of this sequence for perhaps as few as 10 percent." (8)

These statistics confirm what everyone knows through personal experience: Young people are not learning how to use the intellectual and technical tools of survival in an industrial economy that is rapidly evolving toward a high technology society.

The nation pays a high price for this failure, but it is business which is most directly damaged by the declining competence of American youth. Business must absorb recent graduates and attempt to employ dropouts. When high school graduates are unable to read simple instructions or write basic reports, when they cannot do basic computations, when they lack technical skills or the basis upon which skills can be built, when they do not bring promptness, courtesy, and pride of accomplishment to the job, business pays the penalty.

## BUSINESS'S RECOGNITION OF THE PROBLEM

Business is very aware of its human capital needs and the educational system's lagging capacity to deliver.

A 1977 Conference Board study of education in industry reports "most business executives are critical of the performance of the nation's schools and colleges in preparing people for work, and deplore particularly the lack they find in communications and mathematical skills among younger employees." (1)

The Conference Board report indicates that 54 percent of surveyed executives also stressed across-the-board inadequacies: "If any generalization can be made it is that, at all levels of schooling, too many employees lack the language capabilities that executives think they should have. Entry level blue-collar workers may be functionally illiterate; clerical workers may spell or punctuate poorly, speak or write ungrammatically; supervisors, managers, scientists, and other professionals may be unable to organize and present ideas well, orally or in writing." (1)

The *Wall Street Journal* quotes a spokesman for JLG Industries, a Pennsylvania-based manufacturer of cranes and aerial lifts: "Poorly educated workers are our number one problem, the main factor slowing our growth." JLG's factory and clerical work crews were described as unequipped to measure yardage properly or to discuss a client's needs on the telephone; others could not read simple safety instructions, posing a danger to themselves and to others. (10)

California businessmen strongly expressed the same views at a recent statewide meeting: "The single most frequently mentioned concern expressed by employers and educators at the California Conference on Youth Employment was the inadequate job preparation of many youth. This sentiment was expressed in a quotation from an employer attending the education workshop . . .'Youth possess limited or nonexistent work ethics and job readiness skills required to pursue gainful employment.' Employers stated four major characteristics of youth which inhibit their job seeking abilities in the job market. These include: (a) poor work-ethic; (b) poor basic skills; (c) lack of career awareness; and (d) deficient job search skills." (11)

## BUSINESS RESPONSES TO EDUCATIONAL FAILURE

Labor productivity in the United States has declined greatly in the past decade. Output per hour in the goods-producing sector has dropped from a factor of 4.0 in 1948-1965 to 1.2 in 1979-1980. In the service sector, the figures are 2.3 in 1948-1965, and 0.3 in 1979-1980. (12)

Industry's regular investment in job training to correct this trend is already large: Some 45,000 persons are presently employed full-time by U.S. business organizations solely to train some four million employees. One source estimates that a minimum of $4 billion is spent annually on education and training by the private industrial and business sector across the nation. (13) Others say the actual total may be many times that figure. (14)

But, driven by concern over declining productivity and by awareness of the inefficiency and frustration caused by educational failure, the business community is now providing remedial education as groundwork for specific training — basic language and mathematics skills, practical work values,

and career knowledgeability. Eleven percent of 610 companies sampled by the New York Conference Board in 1977 provided instructions in subjects that are "really the responsibility of the schools," and there are more recent indications that business continues a high level of involvement in remedial education. (1) The Illinois Continental Bank, for example, runs remedial English classes because the Chicago public schools have failed to produce students competent for entry-level secretarial jobs. (15)

Other large businesses are establishing links to the schools by providing instructors, directly financing increased hours of academic study, or arranging for students to acquire high school credit while earning money in entry level jobs.

Such responses, however, are not practical for the small businesses who provide an estimated 80 percent of the new jobs in this country. (15) The consequences of their forced acceptance of poorly educated applicants cannot be easily measured, but the losses in quality and efficiency of product or service, and the costs of on-the-job education, are obviously great.

Further, while business supported remedial and school assistance are strong signs of business concern, and in the American spirit of immediate, practical solutions to pressing problems, they represent in the long run yet more subsidizing of a failed system, and a subsidy that neither large nor small business can afford.

In 1983 the public will spend, in California alone, approximately $12 billion on primary and secondary education. One-third of the state's general fund revenue goes to primary and secondary schools, providing about 70 percent of the money needed to run them. (16) The effectiveness and benefits of this huge investment are the issues that must be addressed.

## WHY THE SYSTEM DOESN'T WORK

Education is among other things, an industry. It is expected to produce certain products: from skilled typists to design engineers who can compete in the global automotive and high technology battle, from crane operators to managers and technical writers. Consumers, especially businessmen, are not pleased with the models currently produced.

But consumer choice, the natural determiner of industrial success, has little impact on educational product quality: For those who cannot afford private schools, the public school system is a monopoly. Nor can consumers take their complaints to a corporate board of directors: In education, there is no Board of Directors. Nor can the industry be modernized by engineers: There is no science of education, only evidence that some people are better teachers than others.

This is an organizational crisis. Statewide education decisions are made by people who do not carry them out, and who are not responsible to the parents and teachers who must live and work with the results. There is no organizational means by which consumers — who are the final judges of product quality, can have a direct impact on basic education policies. There is no organizational means by which local administrators and teachers can act on their best judgment of basic education needs. And the many legislatively mandated programs and the bureaucracy itself prevent even the most reform-minded state education official from having any significant effect on the education process.

Our educational system is the very model of a bureaucracy without true authority. There is an elected state Superintendent of Education, a Board of Education appointed by the Governor, and a state Department of Education which is somewhat responsive to both. There are county superintendents of education, sometimes elected, sometimes appointed, and county offices of education. There are local school school superintendents employed by locally elected boards of education, and local school district bureaucracies. In addition, there is the state legislature, giving haphazard direction to all of these, and there are the U.S. Congress and the U.S. Department of Education doing more or less the same.

Each elected or appointed official, each board and commission, has some statutory responsibilities; many possess rule-making authority; but none has express powers of enforcement over the others except in the thousands of instances where they enforce sometimes absurdly detailed, other times maddeningly vague, direct legislative mandates.

As many basic decisions are made outside the system as are made within it, often by an electorate not aware of the

consequences of their actions. Proposition 13, for example, effectively cancelled local taxing powers, further shifting the burden, *and the control,* of school financing to the state legislature. Other financing rules, formulas and amounts are established by other constitutional provisions, or by statute, or by the annual state budget proposed by the state Department of Finance, and amended and passed by the legislature.

Policy control within the system is principally split between the state and various local governments and agencies. State law and regulation determines school building design and construction and teacher qualifications, and effectively controls the choice of textbooks and other teaching materials. Local government agencies control teacher hiring, salaries and contracts, graduation requirements, and curriculum (what the teacher teaches).

The ability of each part of this system to do its job is usually restricted or cancelled out by some other part. There are state-imposed uniformities (buildings, teacher credentials) but no state administrative center. Local levels can choose curriculum, but must select teachers from a pool of teachers approved by the state according to detailed criteria. Local voters can consolidate school districts — thus creating more big bureaucracies without authority — but they cannot, realistically, de-consolidate them.

In short, the citizen who approaches our schools with the intention of modernizing them confronts a system — or non-system — in which no effective control centers, no points of leverage, can be located.

Yet no state level education leaders have addressed the need for major organizational reform. The education establishment has overall proposed only two cures for the failure of public education. One is more money. But it has been demonstrated that the total funds available to a school make little difference in education quality; what matters is how the money is spent. Their other remedy is better teaching methods. But a bureaucracy has no capacity to design or institute these. Despite forty years of investment in education research, each new theory of learning, each new systematized teaching method, has turned out to be a temporary fad. Indeed, if there were a firm scientific basis for principles of education, a uniformly successful educational technique, then it would have

been adopted long ago, and the present problems would not exist. In fact, only one axiom of education has consistently held up: teachers teach students; bureaucracies can't.

## THE FIRST CONDITION FOR REFORM

In the organizational crisis of the schools reform can proceed in either of two directions: toward true centralization — a ministry of education with complete policy and operational control, or toward true decentralization.

True centralization can work, examples being the systems in industrial nations such as Germany or France. But such a reform would be so politically difficult, and so unlikely in an American context to yield the desired practical results, that it is not worth consideration.

The only choice suited to American values and political traditions and, in particular, to American capabilities, is self-governance. There are matters of funding equalization and academic goals which should be established and supported by the state legislature and state institutions such as the universities. But almost every other aspect of the schools should be entrusted to local communities.

The public school system has many purposes and operates in many modes to fulfill them: education, civics training, socialization, acculturation of immigrants, competitive sports, and "day care" for the entire student population. These demands conflict; there is only so much time, so much money, so much technical capability. The state education establishment has attempted to fulfill all these demands. Conflicts have thus been resolved at the state level, where genuine needs are translated into vague, ineffective, expensive bureaucratic programs completely beyond the reach of the persons whose needs are to be met *and* the school boards, principals and teachers responsible for meeting them. As a result, there has been no focus within education and no focal point for efforts at reform.

But in the last few years public dissatisfaction with the schools has found a focus. There is a growing demand for basic education, education to prepare young people to enter the

competitive world of work. Every parent who wants his child to succeed, and every business that wants to succeed, can now agree on a common theme.

**The first step in reform is to create the conditions which make change possible.** Modifications and adjustments of the existing bureaucracy amount to just more of the same, more endorsement of a system without authority and without the means or incentive to change.

The only kind of intervention in public education that will make reform possible is the creation of conditions in which accountability can be established and choice and competition can operate. **These can exist only at the local level, where suppliers and consumers meet face-to-face.**

There is nothing radical about this proposal. It is only in the last few decades that the schools have been bureaucratized, and it is within the same period that the achievement of American students has fallen to intolerably low levels.

There is general agreement that the public schools need drastic improvement. There is overwhelming evidence that the reason they do not improve is that no person or group within the system has the power to change it.

The return of authority over educational methods to local communities will put control within reach of citizens. Parents, businessmen and other consumers of the educational product will be able to go to their schools and express their views to people who can be held accountable. Local school boards, principals and teachers will, for the first time in over 30 years, be able to do something about citizen complaints and recommendations.

## OPPORTUNITIES FOR ACTION

Public rejection of the present school system is a known fact, demonstrated by opinion polls and by that most conclusive evidence, voter rejection of school bonds and school budgets. People believe that there should be a public education system, but, having no confidence in the one we have, and being unable to find a way to change it, they are simply defunding it. This is an opportunity for concerned citizens and for the business community in particular.

Two action principles should guide business efforts to help

the public schools prepare students to become competent members of the work force.

1. The first is that the business community must define exactly what primary and secondary education should accomplish to prepare high school graduates to enter the world of work.

This is the task central to any serious reform effort. Without precisely defined competency requirements, teachers do not know what to teach, students do not know what to learn, and schools cannot establish priorities.

Business is unified in its need for a competent work force. Business can speak with authority about the importance of meeting the demand for competence; the public has put employment and the state of the economy at the top of the list of national issues. And the skills needed by the majority of entry level employees are exactly those most obviously required in a competent work force and most measurable by objective tests: reading, writing and arithmetic; typing, operation of office machines and industrial machinery.

Business, in short, is in an ideal position to make a clear and authoritative statement of what the results of education should be. This is very different from supporting well-intentioned but expensive and ineffective attempts to intervene in the details of present agency processes and programs.

Universities and colleges have always stated their entry level requirements, thus establishing a continuum of planning for schools and for students intending to go on to institutions of higher learning. The California state universities and community colleges issued a joint statement this summer on expected English and mathematics competencies. This is a strong precedent. A similar clear statement from the business community would require no complicated law or bureaucracy to make it effective. As with the prerequisites for college level work, early warning is enough for schools to plan their course offerings and students to plan their studies.

Defining goals is also the first move toward creating accountability. Local school officials have repeatedly stated that they would prefer to be held accountable, but only if two basic requirements for improvement of the public school system are met: a clear public statement of desired results, and freedom from pointless regulation of how they are to be

accomplished. (16)

A business community determination of the objectives of education for economic competence would provide clear goals for this major dimension of education — and provoke the kind of discussion which reveals the reasons why those goals cannot be effectively pursued by most of the present system.

2. The second principle which should guide action toward education reform is business support for the return of authority over the educational process to local communities and local schools, and the return of educational choice to parents.

The only remedy for bureaucracy is self-governance, but this is the one proposal missing from state level gestures toward reform. State agencies cannot reform education. The state legislature has, over the last thirty years, piled structure on structure, program on program, without regard to the ability of schools and teachers to deal with a maze of conflicting and largely meaningless prescriptions and regulations. The statewide education bureaucracy's chief response to the problems which this policy has created has been to propose more regulations. Yet there is no administrative expertise, or science or technology of education, to justify state bureaucratic control of schools and teaching, other than through the enforcement of basic standards of fiscal management, teacher competence and academic achievement.

The conditions for true accountability and effectiveness can only be created at the local level. Until we create these conditions we can only continue, or permit the legislature to continue, to make an endless stream of minor modifications without really accomplishing anything. Should the business community take the lead in restoring authority to local schools, they will have the support of the many local educators who have been the first to ask for that restoration.

Crises create opportunities. Although the idea of a public primary and secondary school system is still endorsed by the public, the actual system has lost their confidence and financial support. In this climate we can either allow the public schools to be abandoned, at heavy cost to American business and the national economy, or we can eliminate the bureaucracy which separates suppliers from demand, and restore the conditions in which schools can compete, and citizens can choose.

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